



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,078	07/06/2001	Sashiro Uemura	96790P370	5843
8791	7590	04/02/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			SANTIAGO, MARICELI	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/900,078

Applicant(s)

UEMURA ET AL.

Examiner

Mariceli Santiago

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 9 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6 and 8 is/are rejected.
- 7) ☒ Claim(s) 2-4 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Response to Amendment***

The Amendment, filed on December 16, 2003, has been entered and acknowledged by the Examiner.

Claims 1-10 are pending in the instant application, claims 9 and 10 have been withdrawn from further consideration as being drawn to a non-elected invention.

Applicant's election without traverse of Group I, claims 1-8, in the Response filed July 28, 2003 is acknowledged.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 5 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No. 6,624,566.

Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

U.S. Application SN 09/900,078	U.S. Patent No. 6,624,566	Reasons for rejection under obviousness-type double patenting
Claim 1	Claim 1	Patent '566 claims a vacuum display comprising a front glass member, a substrate opposing said front glass member through

Art Unit: 2879

		a vacuum space, a plate-like field emission type electron-emitting source with a plurality of through holes which is arranged in the vacuum space to be spaced apart from the substrate, a mesh-like electron extracting electrode formed between the electron-emitting source and the front glass member to be spaced apart from the electron-emitting source, and a phosphor film formed inside the front glass member, wherein the electron-emitting source includes, a plate-like metal member with a large number of through holes and serving as a growth nucleus for nanotube fibers, and a coating film made of a large number of nanotube fibers and formed on a surface of the metal member and inner walls of the through holes.
Claim 5	Claim 5	Patent '566 claims a vacuum display wherein the metal member being made of one of iron or iron-containing alloy, and the coating film being made of a large number of carbon nanotubes formed in a curled state.

Claims 6 and 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,624,566 in view of claims 7 and 8 of Uemura et al. (US 6,522,055).

U.S. Application SN 09/900,078	U.S. Patent No. 6,624,566 in view of U.S. Patent No. 6,522,055	Reasons for rejection under obviousness-type double patenting
Claim 6	Claim 1 ('566) in view of claim 8 ('055)	Patent '566 claims a vacuum display as claimed in the instant application but fails to claim the nanotubes fibers constituting the coating film being fibers each having a thickness of not less than 10 nm and less than 1 μ m and a length of not less than 1 μ m and less than 100 μ m. In the same field of endeavor, patent '055 claims a electron source having nanotubes fibers constituting the coating film, each having a thickness of not less than 10 nm and less than 1 μ m and a length of not less than

Art Unit: 2879

		1 μm and less than 100 μm has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. <i>In re Aller</i> , 105 USPQ 233. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the nanotube fibers length and thickness as claimed by Patent '055, since optimization of workable ranges is considered within the skill of the art.
Claim 8	Claim 1 ('566) in view of claim 7 ('055)	Patent '566 claims a vacuum display as claimed in the instant application but fails to claim the metal member having the through holes in a matrix shape to form a grid. In the same field of endeavor, Patent '055 claims an electron source further providing a metal member having through holes in a matrix shape to form a grid, it has been held that a change in shape is generally recognized as being within the level of ordinary skill in the art. <i>In re Dailey</i> , 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Thus, it would have been obvious to one having ordinary skill in the art to incorporate the grid shaped metal member claimed by Patent '055, since such a modification would have involve a mere change in the shape of a component.

Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 11 of copending Application No. 09/933,984. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

U.S. Application SN 09/900,078	U.S. Application SN 09/933,984	Reasons for rejection under provisional obviousness-type double patenting
Claim 1	Claim 11	Patent '984 claims a vacuum display comprising a front glass member, a substrate opposing said front glass member through a vacuum space, a plate-like field emission type electron-emitting source with a plurality of through holes which is arranged in the vacuum space to be spaced apart from the substrate, a mesh-like electron extracting electrode formed between the electron-

		emitting source and the front glass member to be spaced apart from the electron-emitting source, and a phosphor film formed inside the front glass member, wherein the electron-emitting source includes, a plate-like metal member with a large number of through holes and serving as a growth nucleus for nanotube fibers, and a coating film made of a large number of nanotube fibers and formed on a surface of the metal member and inner walls of the through holes.
--	--	--

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 2-4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2-3, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 2-3, and specifically comprising the limitation of the electron-emitting source comprises a plurality of band-like electron-emitting sources arranged parallel to each other, the electron extracting electrode comprises a plurality of band-like extracting electrodes arranged in a direction perpendicular to the band-like electron-emitting sources.

Regarding claim 4, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 4, and specifically comprising the limitation of the electron-emitting source is fixed to the substrate with an adhesive containing frit glass.

Art Unit: 2879

Regarding claim 7, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claim 7, and specifically comprising the limitation of the metal member having a thickness of 0.05 mm to 0.20 mm.

Response to Arguments

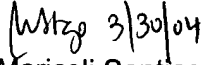
Applicant's arguments, see Remarks, filed December 16, 2003, with respect to the rejection(s) of claim(s) 1, 4-6 and 8 under 35 USC § 102(e) and 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of U.S. Patent No. 6,624,566, U.S. Patent 6,522,055 and U.S. Application SN 09/933,984.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mariceli Santiago whose telephone number is (571) 272-2464. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.


Mariceli Santiago
Patent Examiner
Art Unit 2879